

Opening Statement - Congressman Daniel Lipinski
Subcommittee on Research & Science Education
Hearing on
*STEM Education in Action: Local Schools, Non-Profits, and Businesses Doing Their Part to
Secure America's Future*
April 30, 2012

Thank you, Chairman Brooks, for holding this hearing, and I'd like to thank the witnesses as well for being here today. I'm delighted to be here in Madison to discuss an issue that is not only of great importance to our nation and our ability to compete in the 21st century global economy, but is also one that is of particular interest to me. As a former engineer, I understand all too well how much better we need to do in STEM education and I am glad that the Subcommittee continues to make improving the teaching and learning of STEM disciplines at all levels a top priority.

It's alarming that so many American students perform poorly in science and math. In the most recent National Assessment of Educational Performance, only 21 percent of high school seniors performed at or above the "proficient" level in science. When compared internationally, our students' performance is equally alarming. In the most recent Program for International Student Assessment administered to 15 year-olds, the U.S. ranked 17th in science and 25th in math out of 34 surveyed countries.

Poor performance, such as this, is the first in a series of falling dominoes that are dulling our competitive edge in innovation and technology internationally. The lack of a strong K to 12 foundation in STEM disciplines is a major factor in the high attrition rates in STEM subjects at the postsecondary level as well. Fewer than 40 percent of students who state as college freshmen that they want to

major in a STEM discipline actually end up receiving a bachelor's degree in their desired field. This, in turn, is creating a shortage in the supply of high-skilled workers, the demand for which will grow exponentially in the coming decades. At the same time, other countries are seeing an increase in the number of students receiving degrees in STEM fields and preparing for the high-tech jobs that will shape the global economy in the 21st century. These two factors are placing the U.S. in position in which we could very easily lose our historical advantage in innovation and technology, possibly within our lifetimes.

I know there is no silver bullet that will solve this problem and that we need to attack the STEM education crisis from multiple angles using a number of strategies. That is why I'm pleased to have a panel of witnesses that represent significant stages of the STEM pipeline: high schools, community colleges, four-year universities, non-profits, and industry. I already mentioned the importance of a quality K to 12 education in STEM. Community colleges also play a vital role in preparing students for highly technical jobs upon graduation. In addition, community colleges can provide a pathway to pursuing STEM fields at our nation's world-class universities, such as the University of Alabama in Huntsville.

Finally, I'm aware of the strain that is being placed upon U.S. companies and nonprofit research institutions that rely on students with STEM degrees. Our nation's deficiencies in STEM education are making it increasingly difficult to fill vital positions. I look forward to hearing from each of you about what you perceive to be the problems, and potential solutions, from your unique vantage points. And with that, I yield back.